

# Journal Digest

## In children receiving antibiotics, does coadministration of *Lactobacillus* GG reduce the incidence of diarrhea?

### Commentary

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Gastrointestinal upsets are a well-known side effect of broad-spectrum antibiotic therapy. Although generally regarded as normal, diarrhea arising from the disturbance of the gastrointestinal microflora is often enough to cause parents to discontinue the antibiotics prescribed for their children.

In recent times, the consumption of live microbial organisms, or probiotics, as they are collectively known, has been advocated both for improving health and preventing disease. With the discovery of organisms able to withstand the action of gastric secretions and bile, claims of the ability of probiotics to maintain the microbial balance of the intestine during antibiotic therapy have gained momentum.

The trial by Vanderhoof et al examined the influence of probiotic organism ingestion on gastrointestinal side effects during antibiotic therapy, and their results support the use of probiotics. The findings indicate that 6 children would need to be given *Lactobacillus* GG to prevent 1 additional child from having antibiotic-induced diarrhea, and 4 children would need to be given *Lactobacillus* GG to prevent 1 additional child from having loose and soft or watery stools by day 7 of treatment.

The strength of the study lies in the blinding of all parents, clinicians, and researchers to the intervention. In part, this compensates for the fact that the outcome measures studied were subjective assessments made by parents. In addition to validating parental reports of children's gastrointestinal symptoms, information about the child's usual bowel habits and results of stool cultures<sup>1</sup> would have strengthened the design. Also, the study was funded by the company that produces the drug, a fact that should alert the reader to possible bias.

Despite these design weaknesses, the results confirm the findings of an earlier study<sup>1</sup> and indicate that the use of *Lactobacillus* GG may reduce gastrointestinal upsets associated with antibiotic therapy. Nurses and clinicians seeking to minimize antibiotic-induced diarrhea should consider the use of probiotics. Further research is needed about the effect of reducing antibiotic-induced diarrhea on child absenteeism from school and day care, the use of health services, and compliance with antibiotic treatment.

1 Arvola T, Laiho K, Torkkeli S, et al. Prophylactic *Lactobacillus* GG reduces antibiotic-associated diarrhea in children with respiratory infections: a randomized study. *Pediatrics* 1999;104:e64.